

# intelbras

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User guide

**Twibi Giga**



## **Twibi Giga Mesh router**

Congratulations, you have just purchased a product with Intelbras quality and security.

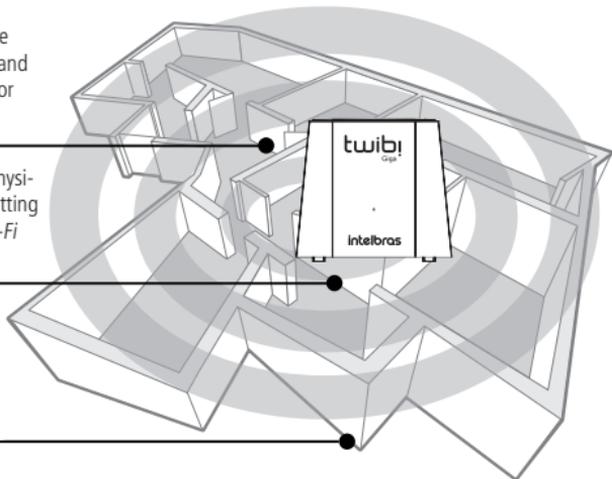
The Mesh Twibi Giga router provides a complete solution for home networks and small offices. With it you can share Internet access with multiple devices in a high-speed wireless network. Its installation and management can be done through the Wi-Fi Control Home application for Android® or iOS, quickly and easily.

# Care and safety

Prefer to install your router in the central part of the environment and preferably in a higher location, for example on top of a furniture.

Avoid an excessive number of physical barriers between the transmitting and receiving devices on the *Wi-Fi* network.

When adding new Twibis to your network, make sure that they are all with the *Green LED*, this ensures better performance of your network.



Do not leave your Twibi exposed to sunlight or heat sources



Do not place the Twibi in closed or tight places.



Do not leave your Twibi near the microwave.



Do not leave your Twibi near the wireless phone (analog).

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# 1. Technical specifications

## Hardware

2 internal antennas of 3 dBi

1 WAN/LAN gigabit port

1 LAN gigabit port

Chipset Realtek® RTL8197FS+RTL8812BR+RTL8363

Flash Memory 16 MB

RAM memory 128 MB

## Wireless parameters

Standards	IEEE 802.11ac/a/n 5 GHz
	IEEE 802.11b/g/n 2.4 GHz
	IEEE 802.11v/r (roaming)
Radio mode	MU-MiMo Beamforming
Frequency of operation	2.4 GHz
	5 GHz
Bandwidth	2.4 GHz: 20, 40 MHz
	5 GHz: 40, 80 MHz
Transmission rate	2.4 GHz: up to 300 Mbps
	5 GHz: up to 867 Mbps
Channels of operation	2.4 GHz: 1 to 11 (Brazil)
	5 GHz: 40
Maximum power (E.I.R.P.)	2.4 GHz: 315 mW (25 dBm)
	5 GHz: 315 mW (25 dBm)
Receiver sensitivity at 2.4 GHz	802.11b 1 Mbps: -97 dBm
	802.11g 54 Mbps: -78 dBm
	802.11n 20 MHz MCS7: -71 dBm
Receiver sensitivity at 5 GHz	802.11n 40 MHz MCS7: -70 dBm
	802.11a 6 Mbps: -92 dBm
	802.11ac 80 MHz MCS9: -61 dBm
Security	WPA/WPA2-PSK with TKIP and/or AES encryption
<b>Power supply</b>	
Input	100–240 V to 50/60 Hz
Output	12 V/1.5 A
Maximum power consumption	18 W

**Attention:** this equipment is not entitled to be protected against harmful interference and may not cause interference to duly authorized systems.

## 2. Meaning of LED

Main Twibi	Other Twibis	Meaning
● Green	● Green	Everything set! Connected to the internet and excellent connection between Twibis
● Green	● Yellow	The Twibi with the <i>Yellow</i> LED is a little far away, we recommend bringing it closer to another Twibi
● Green	● Pink	The Twibi with the <i>Pink</i> LED is too far away, we recommend bringing it closer to another Twibi
● Green	● Red	The Twibi with the <i>Red</i> LED is not able to connect to another Twibi, get it closer to another Twibi
● Blue flashing	● Blue flashing	Your Internet has just disconnected, Twibi is trying to connect to the internet again
● Red	● Red	Your Internet is not working, check your modem and cable connection

**Note:** if you have not yet set up your Twibi, it will flash Blue for a period and then it will turn Red. Follow the steps described here in the guide to configure your Twibi.

## 3. Installation

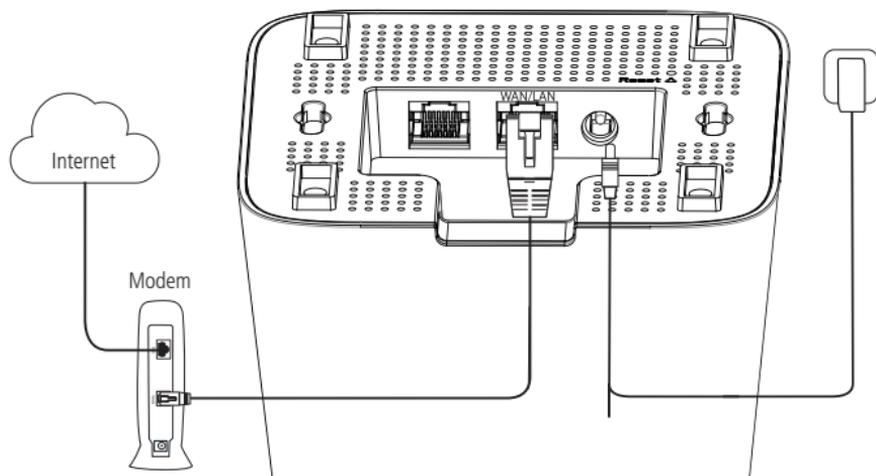
Before you start installing Twibi, download the app *Wi-Fi Control Home* in the App Store® or Google® Play. You can search the app in the store or scan the QR Code below.



### 3.1. Connecting a Twibi to your modem

To use the Internet through Twibi you need to connect it to your operator's modem or router. It is necessary to do this only on a Twibi of your network, following the procedure:

1. Connect one end of the network cable to your modem (LAN port) and the other end to the Twibi's WAN port;
2. Connect the power supply to the Twibi and then plug it into the electrical outlet.



*Installation example*

## 3.2. Connect your smartphone to Twibi

To start configuring the Twibi you must first connect to your *Wi-Fi* network, go to your device's *Wi-Fi* network list and look for the Twibi *Wi-Fi* network. By default, the network is without password, just click on it to connect.



*List of Wi-Fi networks*

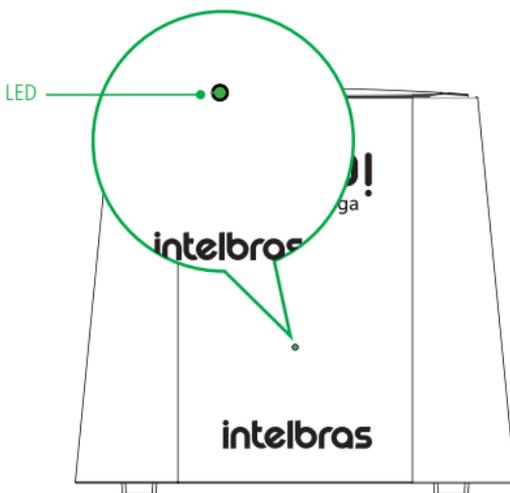
## 4. Configuration

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All Twibi settings are made through the Wi-Fi Control Home application, always make sure you are connected to the *Wi-Fi* network generated by Twibi itself. If you are connected to another *Wi-Fi* network or disconnected from Wi-Fi, the application will not find Twibi. Don't worry, if it does, the application will show you how to connect to the correct *Wi-Fi* network.

### 4.1. Initial configuration of Twibi

To make the first settings, open the Wi-Fi Control Home application, it will detect that your Twibi is not configured and will automatically open the installation wizard, follow the procedure shown to configure your Twibi. When it is correctly connected to the internet, the LED should turn *Green*.



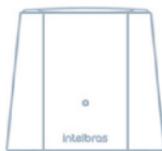
*Product configured and operating normally*

**Note:** if the LED does not turn green, open the application to identify the problem and by clicking on the error message, it will display the steps for correction.

## 4.2. Adding another Twibi to your network

You can add more Twibis to your network and thereby increase the range of your Wi-Fi. To add a new Twibi to your network, follow the procedure:

1. Position the new Twibi up to 15 meters from another already installed Twibi;
2. Connect the power supply to the Twibi and then plug it into the electrical outlet;
3. Wait 1 minute until the product LED starts flashing *Blue* and open the Wi-Fi Control Home application. The following screen should appear, informing that a new Twibi has been found. Click on *Allow* to add Twibi to your network.



NS: E7931012735000394

Um novo Twibi está tentando se juntar  
à rede. Você deseja permitir?

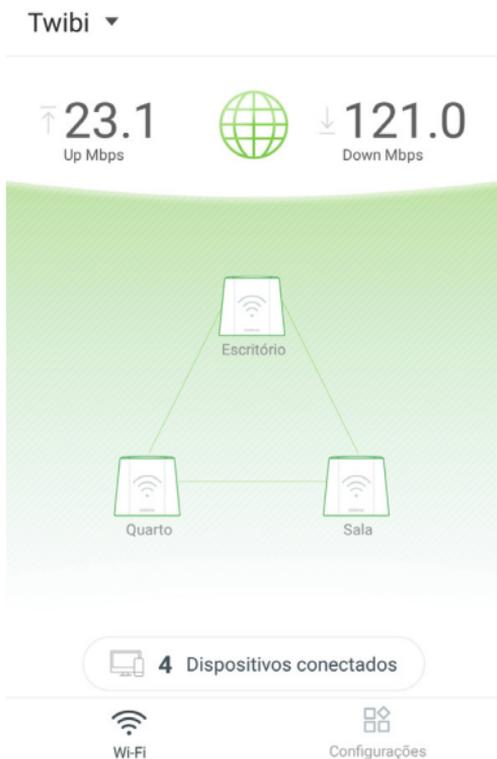
**Negar**

**Permitir**

**Note:** if this screen does not appear when you open the application, click on Settings and then Add Twibi. Just follow the steps in the application to add the new Twibi to your network.

## 5. Using the Wi-Fi Control Home app

When you open the Wi-Fi Control Home application after the first configuration, the main screen will be displayed:



*Main screen of the application*

Here's what each item means:

↑ 23.1  
Up Mbps

Shows how much of your internet upload is currently being used, in megabits per second

↓ 121.0  
Down Mbps

Shows how much of your internet download is currently being used, in megabits per second



Click to display your internet information



Shows the status of each Twibi in your network and tells you individually how the connection is between each Twibi



Click on Twibi to see more information about it



4 Dispositivos conectados

Shows the number of devices connected to your network. Click to see the list of connected devices



Wi-Fi

Shows the main screen of the application

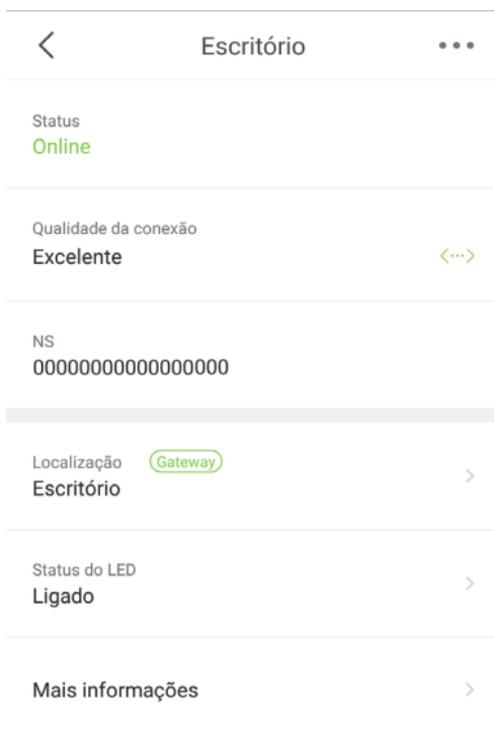


Configurações

Displays the application settings

## 5.1. Information about each Twibi

To see information specific to each Twibi, just click on the *Twibi* you want to get the information on the main screen. When you click on Twibi, the following screen will appear:



*Twibi information screen*

Here's what each item means:

- » **Status:** shows if Twibi is *online* or *offline*, check the tips that are shown if Twibi is *offline*.
- » **Connection quality:** shows the connection quality of this Twibi with the *Mesh* network, we recommend positioning your Twibis so that the quality shown is *Excellent*. Next to the quality, an icon informs how the Twibi is connected to the *Mesh* network, showing  when via Wi-Fi and  when via cable.
- » **NS:** shows the Twibi serial number.

- » **Location:** click to inform the location where Twibi is installed to facilitate the identification and location of each Twibi.
- » **LED status:** shows a description of the product's LED colors and allows you to configure the LED to always be off or on.
- » **More information:** displays technical details of the Twibi.

To remove the Twibi from your network click on the icon **...** and then on *Remove*, a confirmation message will appear, just click on *Yes* if you really want to remove the Twibi.

## 5.2. Device list

To see the list of connected devices click on *Connected Devices* on the main screen.



Device list

You can view the devices connected to your network, for each device an icon is displayed with the manufacturer name, device name, through where the device is connected (2.4 GHz, 5 GHz or via cable), how long the device is connected and the download rate used by the device in real time.

For more information about each device, just click on it. By clicking on it, it is possible to:

- » View the upload and download rate of the device in real time.
- » Change the device name in the option *Device name*.
- » Add the device in a group in the option *Group*.
- » View more information such as IP address and MAC address in the option *Information*.
- » Block the device from accessing Wi-Fi by clicking *Add to the block list*.

To view the blocked devices click on the icon . Within the list of blocked devices, you can release each device individually or release all of them at once.

### 5.3. Wi-Fi network name and password

To change the name or password of your *Wi-Fi* network, got to the menu *Settings* and click on *Wi-Fi*.

- » **Wi-Fi name:** This is the name that will appear in the *Wi-Fi* network list of your devices. The name will be for both 2.4 GHz and 5 GHz *Wi-Fi* networks, and can be up to 32 characters long.
- » **Wi-Fi password:** this is the password you will use when connecting your wireless devices to your network (e.g. mobile phones, tablets, laptops, etc.). The password will be for both 2.4 GHz and 5 GHz *Wi-Fi* networks, and must contain between 8 and 63 characters.

The fields *Wi-Fi Name* and *Wi-Fi Password* allow the following characters:

Espaço	!	"	#	\$	%	&	'	(	)	*	+	,	-	.	/	0	1	2	3	4	5	6	7	8	9
:	;	<	=	>	?	@	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
T	U	V	W	X	Y	Z	[	\	]	^	_	`	a	b	c	d	e	f	g	h	i	j	k	l	m
n	o	p	q	r	s	t	u	v	w	x	y	z	{		}	~									

You can share your *Wi-Fi* network name and password by clicking the icon  and choosing the application through which you want to share.

**Note:** changes will apply to your Mesh system.

## 5.4. Visitors Wi-Fi

In the menu *Visitors Wi-Fi* you can configure a separate network for visitors. With this you do not need to give your main *Wi-Fi* network password to other people.

- » **Wi-Fi name:** this is the name that will appear in the *Wi-Fi* network list of your devices. The name will be for both 2.4 GHz and 5 GHz *Wi-Fi* networks, and can be up to 32 characters long.
- » **Wi-Fi password:** this is the password you will pass on to your visitors to connect their wireless devices to your network (e.g. mobile phones, tablets, laptops, etc.). The password will be for both 2.4 GHz and 5 GHz *Wi-Fi* networks, and must contain between 8 and 63 characters.
- » **Active time:** inform for how many hours you want the visitors network to be available, after that time the visitors network will be disabled. If you want the visitors network to be always available, select the option *Always active*.

The fields *Wi-Fi Name* and *Wi-Fi Password* allow the following characters:

Espaço	!	"	#	\$	%	&	'	(	)	*	+	,	-	.	/	0	1	2	3	4	5	6	7	8	9
:	;	<	=	>	?	@	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
T	U	V	W	X	Y	Z	[	\	]	^	_	`	a	b	c	d	e	f	g	h	i	j	k	l	m
n	o	p	q	r	s	t	u	v	w	x	y	z	{		}	~									

You can share your *Wi-Fi* network name and password with your visitors by clicking the icon  and choosing the application through which you want to share.

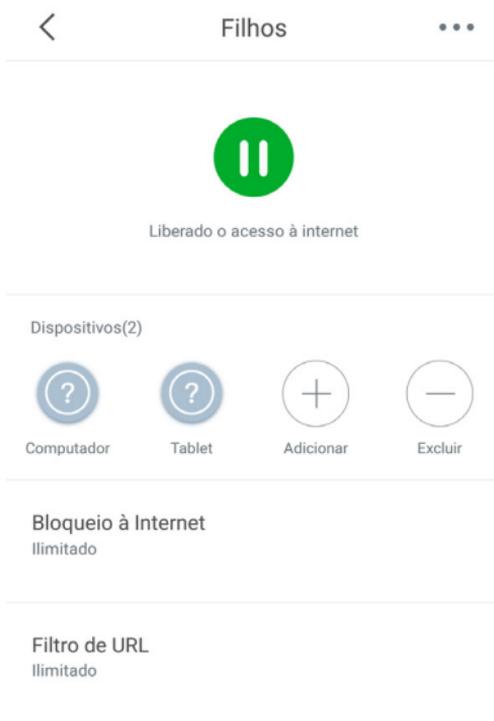
**Note:** the changes will be applied to your Mesh system, i.e. all Twibis available on the network.

## 5.5. Parental control

Twibi's parental control works with access groups, so you can control multiple devices more easily. To manage your children's access, for example, you can create a group called *Children* and add all their devices, such as smartphones, computers and video games (consoles). This way you can limit the internet use time and block websites for all your children's devices.

The first time you access parental control, you will be asked to create your first group, just click on *Create Group*, enter a name for the group and choose which devices you want to add to the group.

When you open the parental control after creating your first group, the list of groups will appear, on this screen you can add a new group by clicking on +, block the internet for all devices in the group by clicking on  or release access by clicking on . The other settings can be made within each group, click on the group you want to configure to view the following screen:



*Group settings screen*

	Internet access is enabled, click on the icon to block Internet access
	Internet access is blocked, click on the icon to enable Internet access
Devices	Shows the list of devices the group is managing
	Click to add more devices to the group
	Click to remove devices from the group

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Internet blocking	Set the times the group will not be able to access the Internet. See the internet blocking item for further details
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URL Filter	Configure which sites the group will not be able to access. See the item <i>Filtro de URL</i> for further details
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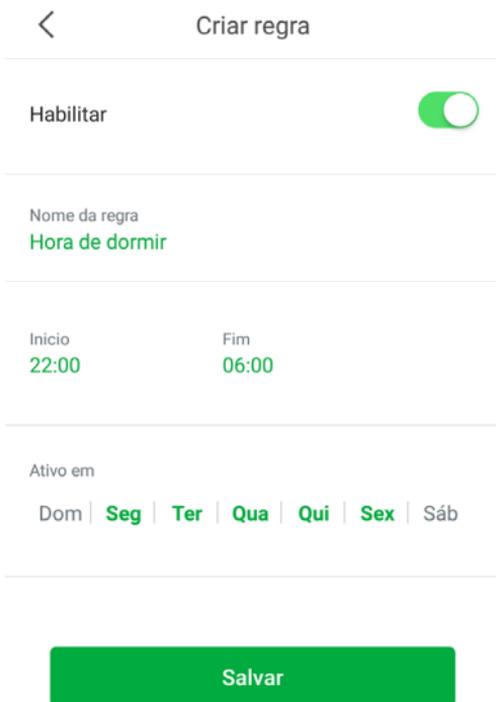
To remove the group, click on **...** and then on *Remove*.

## Internet blocking

The option *Internet blocking* allows you to create rules to control Internet access for the desired group.

On the first access, the application will go directly to the rule creation screen, on the next accesses just click on the icon **+** to add more rules.

To create a rule, you can configure:



< Criar regra

Habilitar

Nome da regra  
Hora de dormir

Início 22:00 Fim 06:00

Ativo em  
Dom | **Seg** | **Ter** | **Qua** | **Qui** | **Sex** | Sáb

Salvar

*Internet blocking screen*

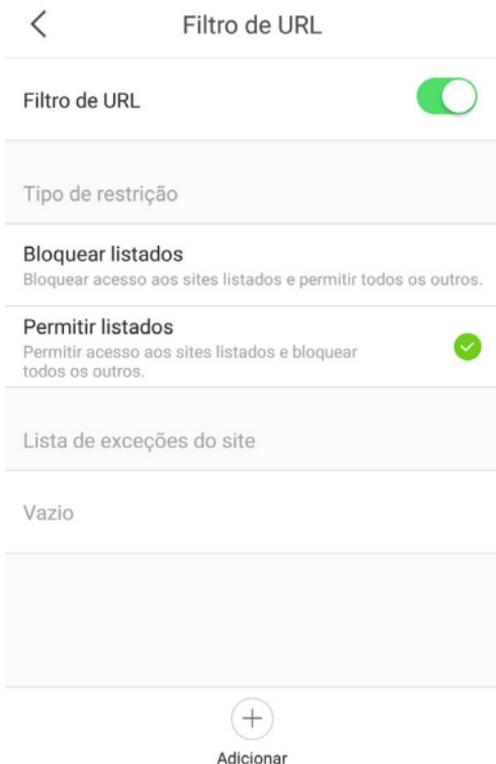
Enable	You can create a rule and disable it if you want to make an exception occasionally, so you do not have to remove the rule and create it again
Rule name	To make management easier, enter a name for the rule
Start and End	Set the time that the Internet will be blocked for the devices
Active on	Define which days the rule should work

**Note:** you can create 6 internet blocking rules per group.

To remove the rule, click on **...** and then on *Remove*.

## URL Filter

The option *URL Filter* allows you to control which websites the group can access.



URL Filter screen

URL Filter	Allows to disable the filter, releasing access to all websites for the group
Type of restriction	Select <i>Block listed</i> if you want to block only some sites and all those you do not enter will be released. If you want to block all sites and release only a few, select <i>Allow listed</i> and enter the sites you want to allow
List of websites	The list will show the websites added so far, whether the site will be released or not depends on the type of restriction selected previously
Add	Click to add a website to the list, just enter a keyword of the site, for example, to enter the website <i>www.intelbras.com.br</i> , just enter the word <i>intelbras</i> <b>Note:</b> <i>pay attention to the password used because all websites that contain it will be blocked.</i>

## 5.6. Band control

Band control prioritizes the Internet for games and website navigation. To work efficiently, it is necessary to inform the contracted internet speed. When you click on *Save*, Twibi will automatically perform band prioritization.



*Band control*

## 5.7. Internet menu

In the menu *Internet*, you can configure the type of Internet connection. This is only necessary if you change your ISP or change some configuration of the modem/router connected to the Twibi WAN port.

The connection types are:

- » **PPPoE:** use this mode if your Internet access requires authentication via *PPPoE*. In this mode, a user and password (provided by your operator or ISP) are required. Enter the user and password in the specified fields. The advanced options should only be changed if your ISP informs you.
- » **DHCP:** use this mode if your connection details are provided automatically via a *DHCP* server.
- » **Static IP Address:** use this mode if your Internet access is provided via a static *IP* address. All information for setting up this mode must be provided by your operator or ISP.
- » **Access point (bridge):** with this mode, the product will not be routed, but will only serve to provide access via *Wi-Fi* and cable to an existing network. In this use scenario, the port *WAN* will work as a *LAN* port. Using this mode, the functions *visitors Wi-Fi*, *Parental control*, *Port forwarding*, *UPnP*, *DNS* and *DHCP Server* will be unavailable.

**Note:** IPv6 works in a transparent way in connections: *PPPoE*, *DHCP* and *Access Point*.

*Example: when the connection is PPPoE, the device will take a prefix to the WAN and receive a prefix (PD) for the LAN.*

## 5.8. Login password

The login password is different from the *Wi-Fi*, network password the login password is the password used to access the Twibi settings. During the installation wizard, you were prompted to fill in the *Wi-Fi* password and the login password and both were automatically saved in the application that ran the wizard. If you want to manage Twibi from another smartphone, you will need to enter the configured login password. You can change the password in the menu *Login Password*.

**Note:** the password will be automatically set on the smartphone that changes the login password, you will need to update the password on other smartphones with *Wi-Fi Control Home* installed.

## 5.9. Fast roaming

This function allows devices to have a better Wi-Fi experience by choosing the best access point to connect to, so that they do not experience disconnection (with excellent connection between access points) when switching from one access point to another. If you have problems with certain devices, such as iOS 4.0 or lower, we recommend disabling this function.

## 5.10. Port forwarding

Port forwarding allows users or services to access your internal network via the Internet. For example, if you have a CCTV system (DVR and camera) in your home, you will need to configure port forwarding to be able to access it when you are away from home.

On the first access, the application will go directly to the rule creation screen, on the next accesses just click on the icon + to add more rules.

When creating the rule, you will first need to choose the device you want to have the ports forwarded to and then you will need to configure it:

- » **Internal Port:** these fields must indicate the port or range of ports used by the device application.
- » **External Port:** these fields must indicate the port or range of ports that will concentrate Internet traffic that will be directed to the ports informed in the field *Internal Port* of the indicated device.
- » **Protocol:** indicates the transport protocol to be used. You need to confirm this information for the forwarding to be successful. The options are *TCP*, *UDP* and *TCP&UDP*. If you want to forward both protocols (*TCP* and *UDP*) to the same destination, you must select *TCP&UDP*.

To remove a rule you must select it and click on ... and then on *Remove*.

## 5.11. UPnP

With the function *UPnP* enabled, you can automatically forward the ports of *UPnP*-enabled programs such as Skype and *online* games.

## 5.12. DHCP Server

You can change the IP address of the main Twibi and the other IP and *DHCP* server settings will be made automatically based on the selected IP address. Simply select the desired IP address and click on *Save*.

## 5.13. DNS

DNS is the service responsible for converting the domain names of the websites to IP addresses, you can leave automatically, this way Twibi will use the *DNS* servers of your access provider or configure manually 2 *DNS* in the fields *primary DNS* and *secondary DNS*.

## 5.14. Firmware update

Wi-Fi Control Home automatically searches for new updates for Twibis whenever the application is opened, if you want to view the version of each Twibi and search again for new updates just enter the menu *Firmware Update*. The version of each Twibi will be displayed on your network and you can check for a newer version by clicking on *Detect latest firmware*. If a new version is detected, you can check the version changelog by clicking on *Twibi* and to update just click on *Update now*.

## 5.15. Automatic maintenance

The function *Automatic Maintenance* allows you to restart the router daily at a specific time. By default, this function is enabled, so the product will restart at the scheduled time as long as there are no users connected with traffic over 3 kB/s. You can change the time at which the router will restart in the option *Restart Time* and the days of the week in the option *Active on*. If you want to restart your router even when you have traffic over 3 kB/s, uncheck the option *Delay*.

**Note:** automatic maintenance only works when the router time is synchronized with the Internet.

## 6. Frequently asked questions

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How do I restore a Twibi to factory default?	Plug the Twibi into the outlet and wait for it to start, hold the <i>Reset</i> button for 10 seconds until the LED turns <i>Grey</i>
Can I add another Twibi?	We recommend using a maximum of 6 Twibis for a good network performance, however, more Twibis can be used. To add a new Twibi to your network, just follow the procedures of the item 4.2. <i>Adicionando outro Twibi na sua rede</i>
How to access the web management page?	Twibi does not have a web management interface, all configuration is done using the Wi-Fi Control Home app
What is the coverage area of the Twibi Giga?	Each Twibi Giga covers an area of up to 180 m <sup>2</sup> . Add more modules if you want to cover a larger area <b>Note:</b> <i>the speed and range of the signal may vary according to the conditions and obstacles in the environment.</i>
How many devices can I connect to the <i>Mesh</i> system?	The Twibi Giga <i>Mesh</i> system supports up to 60 associated devices
Can I connect the Twibi Giga <i>Mesh</i> system via cable?	Yes, the Twibi Giga <i>Mesh</i> system allows you to connect the Twibis via cable. This connection is known as <i>ethernet backhaul</i>
How can I clean my Twibi?	We recommend cleaning Twibi with the combination of damp cloth + neutral soap.

## Warranty term

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It is expressly stated that this contractual warranty is given subject to the following conditions:

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Name of customer:

Signature of the customer:

No. of the invoice:

Date of purchase:

Model:

Serial No:

Reseller:

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1. All parts and components of the product are under warranty against possible manufacturing defects, which may present, for a period of 60 (five) years – comprising 90 (three) months of legal warranty and 57 (fifty seven) months of contractual warranty –, counted from the date of purchase of the product by the Consumer, as stated in the invoice of purchase of the product, which is part of this Term throughout the national territory. This contractual warranty includes the free exchange of parts and components that have a manufacturing defect, including the expenses with the labor used in this repair. If there is no manufacturing defect, but flaw(s) from improper use, the Consumer will bear these expenses.
2. The product installation must be done in accordance with the Product Manual and/or Installation Guide. If your product needs to be installed and configured by a qualified technician, look for a suitable and specialized professional, and the costs of these services are not included in the value of the product.
3. If you notice a defect, you should immediately contact the nearest Authorized Service listed by the manufacturer – only they are authorized to examine and remedy the defect during the warranty period provided herein. If this is not adhered to, this warranty will lose its validity, as it will be characterized as the violation of the product.
4. In the event that the Customer requests home care, the Customer should refer to the nearest Authorized Service for the technical visit fee. If the need for withdrawal of the product is found, the expenses arising, such as transportation and safety to and from the product, are under the responsibility of the Consumer.
5. The warranty will totally lose its validity in the event of any of the following: a) if the defect is not of manufacture, but caused by the Consumer or by third parties alien to the manufacturer; b) if the damage to the product comes from accidents,

claims, agents of nature (lightning, floods, landslides, etc. ), humidity, mains voltage (overvoltage caused by accidents or excessive mains fluctuations), installation/use in disagreement with the user manual or due to natural wear of parts, pieces and components; c) if the product has been influenced by chemical, electromagnetic, electrical or animal (insects, etc.); d) if the product's serial number has been tampered with or erased; e) if the device has been violated.

6. This warranty does not cover loss of data, so it is recommended, if the product is concerned, that the Consumer make a regular backup copy of the data contained in the product.
7. Intelbras is not responsible for the installation of this product and also for any attempts of fraud and/or sabotage on its products. Keep software and application updates, if any, up to date, as well as network protections necessary to protect against hackers. The equipment is under warranty against flaws within its normal conditions of use, and it is important to be aware that, since it is an electronic equipment, it is not free from frauds and scams that may interfere with its correct functioning.
8. After its useful life, the product must be delivered to an authorized technical assistance from Intelbras or directly to the environmentally appropriate final destination, avoiding environmental impacts and health. If you prefer, the battery, as well as other unused Intelbras electronics, can be disposed of at any Green Eletron collection point (electronic waste manager to which we are associated). In case of doubt about the reverse logistics process, please contact us by phone (48) 2106-0006 or 0800 704 2767 (Monday to Friday from 8 am to 8 pm and on Saturdays from 8 am to 6 pm) or through e -mail [suporte@intelbras.com.br](mailto:suporte@intelbras.com.br).

As these are the conditions of this Term of Additional Guarantee, Intelbras S/A reserves the right to change the general, technical and aesthetic characteristics of its products without prior notice.

The manufacturing process of this product is not covered by ISO 14001 requirements.

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